

# From Fish Markets to Capital Markets

**Mike Vogelzang:** [00:00:00] 20 years ago, off the coast of India, fishermen would return to shore at dawn not having any idea what price their catch would bring. Some days they sold every fish before breakfast, and other days when other boats had arrived back to town earlier, their catch would be worthless and they would literally throw it back in the ocean.

Prices rose and fell. Wildly. Then something very simple happened. The mobile phone arrived, and for the first time as they were approaching shore, they could simply pick up that phone and call three or four or even five different villages up and down the coast and inquire, Hey. What's your price for mackerel this morning?

With this simple knowledge, they could redirect their boat and reap the best price for their morning's labor. Suddenly the chaos of pricing in that micro market stabilized most importantly, the fishermen could plan, plan for tomorrow or plan for next year, [00:01:00] invest in the next new boat, or the new nets that were desperately needed.

A few bites of information. On a cell network traveling faster than a fishing boat changed an entire economy on the coast of India and many other places. This story came from a Stanford University study showing that information today in economic development is as or more. Than infrastructure. Think about that information is at least as important as physical roads and productive factories in generating economic growth.

So today we're sitting at the precipice of the next great Leap Cell phones and internet provided access to information in this next phase. Artificial intelligence is providing judgment and expertise, particularly in places where expertise has been rare. Let me tell you three more short stories. [00:02:00] In a small village in Kenya, a woman walks through her cassava field.

She spots white streaks on her leaves before AI diagnosing. That was a guessing game. It might be blight, fungus, bugs, and it often meant losing a season's income. Now she lifts her \$100 smartphone snaps a photo and an AI model called nru tells her instantly it's cassava mosaic disease and here is how to stop it.

The harvest is saved, the family eats. And that knowledge, once trapped in universities, is now in the palm of her hand across Africa and Asia. A single dry season can erase years of work, but with ai, satellite data and smart models, farmers can now buy micro insurance for just a few dollars. One company, Pula, has reached more than 20 million farmers.[00:03:00]

So now when drought hits. Farmers get a simple text message that says The rain failed, your payout has arrived. You see, it's not just money, it's the confidence and the courage to plant again next year. And in a rural town in India, a grandmother walks into a government office. She speaks her local dialect, but the official doesn't.

In the past, that meant frustration and likely exclusion, but today thanks to India's Bini platform, she can speak in her own language. The official hears her instantly in his, she gets the service she needs. A voice that was invisible is now heard. Four stories, four ordinary people, some fishermen, a farmer, a mother, a grandmother.

Each changed not by [00:04:00] wealth, but by access. Because markets work when knowledge arrives on time. And AI's greatest gift to emerging economies. Isn't gadgets or code. It's confidence. The confidence to plant, to invest, to participate. That's the foundation of every great economy. The belief that effort will be rewarded, that markets will work, that progress is possible.

Widening our aperture from these four stories. An obvious question for investors presents itself. How will AI impact the global economy? This chart is possibly the most powerful in all of economics and markets. This light blue squiggle sums the total of human work intelligence, creativity, planning, and a universal human striving to make one's life better.

It charts global real GDP per capita for the last [00:05:00] 155 years since 1870. As you can see. GDP per capita has grown 1.9% annually for those 150 plus years. The Federal Reserve Bank of Dallas studied the potential impact of AI on this long-term growth rate. Their conclusion, AI has the potential to boost GDP growth per capita from 1.9%.

To 2.1% for the next decade. While modest sounding, this change actually represents a 10.5% increase in long-term growth rates, increasing GDP for every person on the planet and their corresponding output. That justifies being optimistic. So what are these other lines on here? Well, the first, the one Dallas Fed labeled as singularity benign.

We've dubbed it the Age of Abundance. When AI becomes smarter than humans, reaching so-called super intelligence and the environment is [00:06:00] benign. Energy, medicine, education, housing, they'll all be free. You don't have to work if you don't want to. Now. How society manages this seismic change is an open question, but AI might just usher in a world where shortages and resource reallocations don't exist any longer.

Benign indeed. The second line labeled as. Singularity extinction we've dubbed as the Terminator scenario and fervently hope that it's not our future with or without Arnold Schwarzenegger and Skynet. But assume for a moment that we escape extinction. The optimism in AI boosted growth is enormous. But first, let's look at a couple of important things.

1.9% growth has bought us over the last 155 years. The first is jaw dropping life expectancy [00:07:00] across the globe since just before 1900 has doubled. That means the average life expectancy in the US in 1890 was about 40 years. Today, an average American born this year can expect to live close to or over 80 years of age.

What remarkably, unequivocally. Great news. And life expectancy isn't the only good news. Poverty rates have plunged both in America and around the globe. Literacy rates are nearly 100%. Education is readily available even among those below the poverty line. Access to healthcare is improving while violent crime rates have dropped substantially.

So if 1.9% GDP growth has endowed us with a longer live, wealthier, more educated population, think of how life may improve. Further with GDP growth of 2.1%, but you ask what might hold us back. [00:08:00] We believe the tug of war for the next generation will be between the productivity of technology. Versus the twin time bombs of debt and demographics.

Two quick slides can illustrate this point. On the left, you see the total debt burden in the US, including federal government, household businesses, and state and local governments. On the right, you see the crowding out of the top three by the federal borrowing. Well, not critical today. This is a negative challenge our children will deal with in the future.

High levels of debt have the potential to lower future economic output. The second risk is demographic, specifically the slowing population growth and even shrinkage in most of the world today, the left half of this graph shows workers per retiree. In the 1980s, there were eight workers for every retiree in the world.

Today that number is [00:09:00] 5.5 and heading quickly down to between two and three workers per retiree in the next 50 years or so. The right side of this chart details the negative impact. This may have on global growth starting in the next five years. The world might have to overcome a growing annual demographic penalty due to weaker demographics.

So the battle lines for future growth are starkly drawn. Will a smaller population combined with high levels of debt drag the world into a perpetual recession, or will technology enabled productivity overcome that drag? One last look at a reason for optimism. Empirical research made an estimate of how impactful the implementation of artificial intelligence could be on corporate earnings.

In this chart, they decomposed the impact of AI on margins for the s and p 500 over the next five years, overall between some [00:10:00] positive impacts like wage savings and better pricing power using ai. And the negative paying for AI's infrastructure might lead to a 0.6% improvement in profit margins. This, by the way, is a key reason the stock market has been soaring the last three years.

We started today with four simple stories of how technology has improved the lives of many, particularly those most disadvantaged by not participating as fully. In modern society, that fisherman with a phone, a farmer with a camera, and a farmer who receives a text, and a grandmother who finds her voice.

Each of them reminds us that economic development isn't just about capital or policy, but rather it's about connection. When information, judgment and opportunity move freely, people do too for centuries. Growth came from what we could build with our [00:11:00] own hands, roads, ports, power lines. Today, it's also built from what we can share with our minds, including data insight and intelligence.

Technology doesn't replace human progress. It's able to amplify it. It makes the invisible visible, the excluded included. And the uncertain, confident, it allows planning in place of panic. So as we look ahead to the next decade of markets in transitions and of economies reshaping, we should remember that the same power that tamed fish prices and saved harvests can now transform how billions will work, trade and thrive.

We believe if stewarded wisely. AI won't just make our markets more efficient, it will make our future more prosperous, more resilient, and yes, even more human. [00:12:00] And that's a future worth believing in.